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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,137	01/21/2004	Hans K. Van Dijk	121640-40307842	8824

43569 7590 07/13/2005

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EXAMINER
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YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/761,137	VAN DIJK ET AL.	
	Examiner	Art Unit	
	Sam Chuan C. Yao	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/220,887.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 20 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 is indefinite, because it is unclear what is intended by "*individual filaments of the fibers*". For the purpose of examining this claim, it is assumed that phrase "the fibers" in this limitation is referring to a bundle of fibers.

Claim 24 is indefinite, because it is unclear what is intended by "*polyethylene/polyamide*". Does this limitation require a blend or a copolymer of polyethylene and polyamide. For the purpose of examining this claim, it is assumed that the above limitation requires the former instead of the latter.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 16-18, 20 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by Tsuchiyama (Progress in Science and Engineering of Composites, Proceedings of the ICCM-IV, Tokyo, 1982; hereinafter simply referred to as PSECP).

Art Unit: 1733

With respect to claims 16-17, Tsuchiyama discloses a process of an SMC. The process involves coating a metered amount of resin to a pair of films; applying chopped carbon fiber strands between the covering films to form a compactible laminate, wherein the length of the chopped strands ranges from 0.5-4 inches (i.e. 12.7-101.6 mm); and then compacting the laminate together using conventional compaction rollers to form the SMC. (abstract; page 497 last full paragraph, pages 498-499, figure 6).

With respect to claim 18, see page 497 last full paragraph, page 498 last paragraph to page 499, and figure 5.

With respect to claim 20, in light of the similarity of the production processes (especially for a strand comprising 1000 filaments or 6000 filaments), individual filaments must inherently be wetted. Note: this claim does not appear to positively require wetting each individual filaments in a fiber bundle/strand.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama (PSECP) as applied to claim 16 in numbered paragraph 2, and further in view of Rinz (US 6,040,391).

Art Unit: 1733

With respect to claim 19, Tsuchiyama appears to be silent on an amount of fillers in a coating resin composition. However, it would have been obvious in the art to incorporate up to 70 wt% of filler to a coating composition in forming an SMC of Tsuchiyama, because it is a common practice in the art to form a carbon fiber reinforced SMC, where a resin coating composition includes up to 70 wt% of fillers as exemplified in the teachings of Rinz (col. 7 lines 29-63; col. 9 lines 22-36; figure 1).

With respect to claim 23, see the compactor illustrated in figure 1.

7. Claim 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama (PSECP) as applied in numbered paragraph 2.

With respect to claim 21, while the limitation in this claim is not explicitly disclosed, the limitation in this claim appears to be inherent in a process of Tsuchiyama. In any event, such would have been obvious in the art because it is conventional in the art to form an SMC by compacting a fiber reinforced laminate to a predetermined setting time so that a finished SMC is suitable for further molding to a desired configuration.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiyama (PSECP) as applied to claim 16 in numbered paragraph 2, and further in view of Greve (US 6,119,750).

While Tsuchiyama does not teach using covering films, where each comprises polyethylene/polyamide. However, it would have been obvious in the art to form an SMC of Tsuchiyama using each covering film comprising a mixture of polyethylene

Art Unit: 1733

and polyamide as such is conventional in the art of making a carbon fiber-reinforced SMC as exemplified in the teachings of Greve (abstract; col. 3 lines 1-28; figure 1).


**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
07-10-05